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EXAMINER

ORTIZ CRIADO, JORGE L

ART UNIT PAPER NUMBER

2656

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/757,547	Applicant(s) SUZUKI, KENICHI	
	Examiner Jorge L. Ortiz-Criado	Art Unit 2656	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 10/27/2005 have been fully considered and after cursory review, the examiner has not found the arguments persuasive, see the explanations and the concluded following results.

Applicants argues that Hashimoto in view of the "Applicant's admitted prior art", does not disclose or suggest wherein the focus balance control continuously changes, during a playback mode, the value of said variable coefficient Kf ...", see page 7, lines 12-18 of Applicant's remarks. Applicants also asserts that support for this limitation is found in Figs. 5, 6 and in the specification, see page 6, line 6 of Applicants' remarks. Throughout the original specification, there is no discussion of any "playback mode" or "mode" and "continuously changes" the value of Kf. The Examiner cannot find support for "continuously changing" during "a playback mode" as asserted by the Applicant. For examination purpose, the "wherein the focus balance control means" clause of claims 1 and 6, each is assumed to mean as without having the terms "continuously" and "during layback mode".

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claims 1-10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 1 and 6 recites the limitation “wherein the focus balance control continuously changes, during a playback mode, the value of said variable coefficient K_f ...”.

The Examiner cannot readily ascertain where in the disclosure, as originally filed that provides support to the term continuously changes, during a playback mode”.

Description from the specification related to the change of coefficient K_f includes:

The specification, page 14, states that the value K_f is programmed in advance in the data processing section 10. The Specification page, 15, states that the data processing section 10 changes the value K_f based on the error center value and the balanced-adjusted FE signal until a minimum difference is obtained between the FE signal and the error center value. The Specification at page 17, states that the data processing section 10 determines whether or not the absolute value of the focus bias value E_k is greater than the focus bias setting limit value E_{max} and that if the absolute value of the present focus bias setting limit value E_k is determined to be greater than the focus bias setting limit value E_{max} , the processing is ended. Further, the specification from page 17 to page 19, states that the focus balance control of Fig. 5, which describes the flow of processing when an automatic adjustment of defocusing” is carried out. At the very first step (S1), “the semiconductor laser device of the pick up is turned on so as to measure the error center value” In the step (S2) the focus-bias adjustment is performed. Then in

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step (S3) it is determined that the value of the bias adjustment is greater than the focus bias limit if so the process is ended. Otherwise follows step four (S4) substitutes the coefficient Kf and after the substitution return to step 2, these steps will be performed until it is determined that the value of the bias adjustment is greater than the focus bias limit and the process is ended, as previously described in step (S3). The same process is performed when an automatic adjustment of detracking is carried out, which is explained on page 18 to page 19 and in Fig. 6.

The “automatic adjustment of defocusing”, is performed at the beginning of the “automatic adjustment” when the semiconductor laser device of the pick up is turned on, and the initial focus is carried out.

Applicants called this process “automatic adjustment of defocusing”, which by way of specification background, of applicant disclosure, such process of a defocus and de-track adjustments are automatically made at the start of the apparatus, in a conventional optical disc reproduction apparatus, see Specification, page 1, lines 14-15. The Examiner has found that in light of the supporting disclosure, which in the descriptive portion of the specification by reference to the drawings, Applicant’s automatic adjustment of defocusing/detracking is performed at the start of the apparatus, and not during such a “playback mode”.

Throughout the original specification, there is no discussion of any “playback mode” or “mode” and “continuously changes” the value of Kf.

For examination purpose, the “wherein the focus balance control means” clause of claims 1 and 6, each is assumed to mean as without having the terms “continuously” and “during layback mode”.

Claims 2-5 and 7-10 fall together, for the dependency of claims 1 and 6, respectively.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto U.S. Patent No. 6,335,909 in view of the “Applicant’s admitted prior art”.

Regarding claim 1, Hashimoto discloses an optical disc apparatus comprising:

an optical pickup for irradiating a light beam through “a two-focus lens”(see col. 3, lines 19-29; for use in multi-layer disks, hence two or more focus) onto a signal recording surface of an optical disc including the signal recording surface where digital data is recorded to be optically readable, and for detecting reflection light thereof using plural detectors generating at least A,B,C and D detection signals; said two-focus lens being an objective lens having focuses at two positions (See Abstract; col. 2. line 56 to col. 3, line 28; col. 3, line 29 to col. 4, line 37 Fig. 1);

drive control means for driving and controlling the two-focus lens in an optical axis direction of the light beam (See col. 2. line 56 to col. 3, line 28; Fig. 1);

focus error center value measurement means for measuring a focus error center value detected by the optical pickup (See col. 2, lines 41 to col. 4, line 18)

focus error signal generation means for generating a focus error signal subjected to balance-adjustment based on the reflection light and a variable coefficient K_f , wherein said focus error signal (FE) is generated by the equation $FE=(A+C)-K_f*(B+D)$ (See col. 2, lines 41 to col. 4, line 18; Fig. 1, output of ref#2, signal S1) and

focus balance control means for causing the drive control means to control a focus balance, based on the focus error center value measured by the focus error center value measurement means (See Fig. 1, ref# 6), and

the focus error signal generated by the focus error signal generation means and subjected to the balance adjustment (See col. 2, lines 41 to col. 4, line 18; Fig. 1, output of ref#2, signal s1)

wherein the focus balance control means changes, the value of said variable coefficient K_f , based on the focus error center value and the balance adjusted focus error signal, until a minimum difference is obtained between the focus error signal and the focus error center value (see col. 3, lines 56 to col. 4, line 8)

Hashimoto teaches that the focusing method for the servo focusing adjustment is well known in the art, but does not expressly disclose wherein said light beam is focused on said signal recording surface by driving said two-focus lens in a down-search in such a manner that S-shaped fake signals do not occur before S-shaped true signal.

However, this feature is well known in the art as evidenced by "Applicant's admitted prior art", which discloses an optical disc reproducing apparatus having a two-focus lens objective lens, and driving the objective lens by a **so-called down-search**, wherein the objective lens is focused in the optical disc in a direction in which the lens moves apart from a position closer to the optical disc than the focus position. Inherently present in a **down search** is the

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presence of S-shaped fake signals that do not occur before S-shaped true signal, (See page 3, lines 5-13)

Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention to perform a focusing servo adjustment in a **down-search**, because by doing that the signal called S-shaped fake is avoided to be detected before a true S-shaped signal and further providing the focus servo to turn on at the time of the S-shape true signal, as taught by “Applicant’s admitted prior art”

Regarding claims 2 and 7, Hashimoto further discloses focus/tracking bias voltage supply means for supplying the drive control means with a focus/tracking bias voltage; and focus/tracking bias control means for causing the focus/tracking bias voltage supply means to supply the drive control means with the focus/tracking bias voltage, thereby to cause the drive control means to control a focus/tracking bias (See col. 2, lines 41 to col. 4, line 18; Fig. 1, ref# 6,7)

Regarding claims 3 and 8, Hashimoto further discloses wherein the two-focus lens forms two focus positions by one single objective lens, corresponding to a plurality of discs having respectively different disc substrate thicknesses (See Abstract; col. 2, lines 19-39; col. 5, lines 6-37)

Regarding claims 4 and 9, Hashimoto further discloses wherein the focus error center value measurement means measures an error center value with the two-focus lens kept sufficiently distant from a just-focus position (See col. 2, lines 41 to col. 4, line 18)

Regarding claims 5 and 10, Hashimoto further discloses wherein a plurality of values including an initial value used as a reference are set and stored for the coefficient K_f (See col. 2, lines 41 to col. 4, line 18)

Regarding claim 6, Hashimoto further discloses an optical disc apparatus comprising:
an optical pickup for irradiating a light beam through a two-focus lens onto a signal recording surface of an optical disc including the signal recording surface where digital data is recorded to be optically readable, and for detecting reflection light thereof using plural detectors generating at least E and F detection signals; said two-focus lens being an objective lens having focuses at two positions (See Abstract; col. 2. line 56 to col. 3, line 28; Fig. 1);

drive control means for driving and controlling the two-focus lens in a radial direction of the optical disc (See col. 2. line 56 to col. 3, line 28; Fig. 1);

tracking error center value measurement means for measuring a tracking error center value detected by the optical pickup (See col. 2, lines 41 to col. 4, line 18);

tracking error signal generation means for generating a tracking error signal subjected to balance-adjustment based on the reflection light and a variable coefficient K_t ; wherein said tracking error signal (TE) is generated by the equation, $TE = E - K_t * F$ (See col. 2, lines 41 to col. 4, line 18; Fig. 1, output of ref#4, signal S2), and

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tracking balance control means for causing the drive control means to control a tracking balance, based on the tracking error center value measured by the tracking error center value measurement means (See Fig. 1, ref# 6), and

the tracking error signal generated by the tracking error signal generation means and subjected to the balance adjustment. (See col. 2, lines 41 to col. 4, line 18; Fig. 1, output of ref#4, signal S2)

wherein the tracking balance control means changes, the value of said variable coefficient K_t , based on the tracking error center value and the balance adjusted tracking error signal, until a main focus spot of said light beam is just above a recording track on said signal recording surface on the optical disk (see col. 3, line 56 to col.4, line 52)

Hashimoto teaches that the focusing method for the servo focusing adjustment is well known in the art, but does not expressly disclose wherein said light beam is focused on said signal recording surface by driving said two-focus lens in a down-search in such a manner that S-shaped fake signals do not occur before S-shaped true signal.

However, this feature is well known in the art as evidenced by "Applicant's admitted prior art", which discloses an optical disc reproducing apparatus having a two-focus lens objective lens, and driving the objective lens by a **so-called down-search**, wherein the objective lens is focused in the optical disc in a direction in which the lens moves apart from a position closer to the optical disc than the focus position. Inherently present in a **down search** is the presence of S-shaped fake signals that do not occur before S-shaped true signal, (See page 3, lines 5-13)

Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention to perform a focusing servo adjustment in a **down-search**, because by doing that the signal called S-shaped fake is avoided to be detected before a true S-shaped signal and further providing the focus servo to turn on at the time of the S-shape true signal, as taught by “Applicant’s admitted prior art”

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jorge L. Ortiz-Criado whose telephone number is (571) 272-7624. The examiner can normally be reached on Mon.-Thu.(8:30 am - 6:00 pm),Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Thi Nguyen can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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11/9/06